

1644

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/674,857

DATE: 05/29/2001

TIME: 12:56:09

Input Set : A:\620-117.app

Output Set: C:\CRF3\05292001\I674857.raw

3 <110> APPLICANT: Armour, Kathryn L
 4 Clark, Michael R
 5 Williamson, Lorna M
 7 <120> TITLE OF INVENTION: Binding Molecules Derived From Immunoglobulins
 8 Which Do Not Trigger Complement Mediated Lysis
 10 <130> FILE REFERENCE: 620-117
 12 <140> CURRENT APPLICATION NUMBER: US 09/674,857
 13 <141> CURRENT FILING DATE: 2000-11-07
 15 <150> PRIOR APPLICATION NUMBER: PCT/GB99/01441
 16 <151> PRIOR FILING DATE: 1999-05-07
 18 <150> PRIOR APPLICATION NUMBER: GB 9809951.8
 19 <151> PRIOR FILING DATE: 1998-05-08
 21 <160> NUMBER OF SEQ ID NOS: 27
 23 <170> SOFTWARE: PatentIn Ver. 2.1
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 109
 27 <212> TYPE: PRT
 28 <213> ORGANISM: Artificial Sequence
 30 <220> FEATURE:
 31 <223> OTHER INFORMATION: Description of Artificial Sequence: Mutated
 32 antibody
 34 <400> SEQUENCE: 1
 35 Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 36 1 5 10 15
 38 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 39 20 25 30
 41 Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 42 35 40 45
 44 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 45 50 55 60
 47 Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 48 65 70 75 80
 50 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly
 51 85 90 95
 53 Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys
 54 100 105
 58 <210> SEQ ID NO: 2
 59 <211> LENGTH: 109
 60 <212> TYPE: PRT
 61 <213> ORGANISM: Artificial Sequence
 63 <220> FEATURE:
 64 <223> OTHER INFORMATION: Description of Artificial Sequence: Mutated
 65 antibody
 67 <400> SEQUENCE: 2
 68 Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 69 1 5 10 15
 71 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/674,857

DATE: 05/29/2001

TIME: 12:56:09

Input Set : A:\620-117.app

Output Set: C:\CRF3\05292001\I674857.raw

```

72          20          25          30
74 Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val
75          35          40          45
77 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
78          50          55          60
80 Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln
81 65          70          75          80
83 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly
84          85          90          95
86 Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Thr Lys
87          100          105
91 <210> SEQ ID NO: 3
92 <211> LENGTH: 110
93 <212> TYPE: PRT
94 <213> ORGANISM: Artificial Sequence
96 <220> FEATURE:
97 <223> OTHER INFORMATION: Description of Artificial Sequence: Mutated
98     antibody
100 <400> SEQUENCE: 3
101 Ala Pro Pro Val Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
102 1          5          10          15
104 Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
105          20          25          30
107 Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
108          35          40          45
110 Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
111          50          55          60
113 Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
114 65          70          75          80
116 Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
117          85          90          95
119 Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys
120          100          105          110
124 <210> SEQ ID NO: 4
125 <211> LENGTH: 110
126 <212> TYPE: PRT
127 <213> ORGANISM: Homo sapiens
129 <400> SEQUENCE: 4
130 Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
131 1          5          10          15
133 Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
134          20          25          30
136 Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
137          35          40          45
139 Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
140          50          55          60
142 Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
143 65          70          75          80
145 Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys

```

RAW SEQUENCE LISTING

DATE: 05/29/2001

PATENT APPLICATION: US/09/674,857

TIME: 12:56:09

Input Set : A:\620-117.app

Output Set: C:\CRF3\05292001\I674857.raw

```

146          85          90          95
148 Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
149          100          105          110
153 <210> SEQ ID NO: 5
154 <211> LENGTH: 109
155 <212> TYPE: PRT
156 <213> ORGANISM: Homo sapiens
158 <400> SEQUENCE: 5
159 Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
160 1 5 10 15
162 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
163 20 25 30
165 Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val
166 35 40 45
168 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
169 50 55 60
171 Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln
172 65 70 75 80
174 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly
175 85 90 95
177 Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys
178 100 105
182 <210> SEQ ID NO: 6
183 <211> LENGTH: 110
184 <212> TYPE: PRT
185 <213> ORGANISM: Homo sapiens
187 <400> SEQUENCE: 6
188 Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
189 1 5 10 15
191 Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
192 20 25 30
194 Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Lys Trp Tyr
195 35 40 45
197 Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
198 50 55 60
200 Gln Tyr Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Leu His
201 65 70 75 80
203 Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
204 85 90 95
206 Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys
207 100 105 110
211 <210> SEQ ID NO: 7
212 <211> LENGTH: 110
213 <212> TYPE: PRT
214 <213> ORGANISM: Homo sapiens
216 <400> SEQUENCE: 7
217 Ala Pro Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
218 1 5 10 15
220 Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val

```

RAW SEQUENCE LISTING

DATE: 05/29/2001

PATENT APPLICATION: US/09/674,857

TIME: 12:56:09

Input Set : A:\620-117.app

Output Set: C:\CRF3\05292001\I674857.raw

```

221          20          25          30
223 Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
224          35          40          45
226 Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
227          50          55          60
229 Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
230          65          70          75          80
232 Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
233          85          90          95
235 Gly Leu Pro Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys
236          100          105          110
240 <210> SEQ ID NO: 8
241 <211> LENGTH: 110
242 <212> TYPE: PRT
243 <213> ORGANISM: Artificial Sequence
245 <220> FEATURE:
246 <223> OTHER INFORMATION: Description of Artificial Sequence: Mutated
247     antibody
249 <400> SEQUENCE: 8
250 Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
251     1          5          10          15
253 Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
254          20          25          30
256 Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
257          35          40          45
259 Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
260          50          55          60
262 Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
263          65          70          75          80
265 Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
266          85          90          95
268 Gly Leu Pro Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys
269          100          105          110
273 <210> SEQ ID NO: 9
274 <211> LENGTH: 109
275 <212> TYPE: PRT
276 <213> ORGANISM: Artificial Sequence
278 <220> FEATURE:
279 <223> OTHER INFORMATION: Description of Artificial Sequence: Mutated
280     antibody
282 <400> SEQUENCE: 9
283 Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
284     1          5          10          15
286 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
287          20          25          30
289 Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
290          35          40          45
292 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
293          50          55          60

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/674,857

DATE: 05/29/2001

TIME: 12:56:09

Input Set : A:\620-117.app

Output Set: C:\CRF3\05292001\I674857.raw

```

295 Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
296 65                               70                               75                               80
298 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
299                               85                               90                               95
301 Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
302                               100                               105
306 <210> SEQ ID NO: 10
307 <211> LENGTH: 110
308 <212> TYPE: PRT
309 <213> ORGANISM: Artificial Sequence
311 <220> FEATURE:
312 <223> OTHER INFORMATION: Description of Artificial Sequence: Mutated
313     antibody
315 <400> SEQUENCE: 10
316 Ala Pro Pro Val Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
317 1                               5                               10                               15
319 Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
320                               20                               25                               30
322 Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
323                               35                               40                               45
325 Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
326                               50                               55                               60
328 Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
329 65                               70                               75                               80
331 Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
332                               85                               90                               95
334 Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
335                               100                               105                               110
339 <210> SEQ ID NO: 11
340 <211> LENGTH: 109
341 <212> TYPE: PRT
342 <213> ORGANISM: Artificial Sequence
344 <220> FEATURE:
345 <223> OTHER INFORMATION: Description of Artificial Sequence: Mutated
346     antibody
348 <400> SEQUENCE: 11
349 Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
350 1                               5                               10                               15
352 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
353                               20                               25                               30
355 Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val
356                               35                               40                               45
358 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
359                               50                               55                               60
361 Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
362 65                               70                               75                               80
364 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly
365                               85                               90                               95
367 Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/674,857

DATE: 05/29/2001

TIME: 12:56:10

Input Set : A:\620-117.app

Output Set: C:\CRF3\05292001\I674857.raw